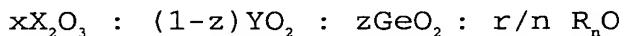


CLAIMS

1. A crystalline material characterized in that it does not contain fluorides, with a composition in a roasted state corresponding to that of the material called ITQ-17 and in that it has a composition on an anhydrous base and in terms of moles of oxides upon being synthesized, unroasted, represented by:



wherein:

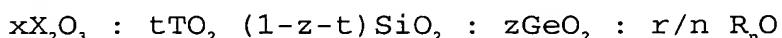
- X is at least one trivalent element,
- Y is one or more tetravalent elements other than germanium,
- R is an organic structure directing compound,
- x varies between 0 and 0.02, preferably between 0 and 0.01,
- z is comprised between 0.02 and 0.67, preferably between 0.04 and 0.5,
- r varies between 0.01 and 0.5, preferably between 0.01 and 0.25, and
- n is 1 or 2,

and whose most representative values of the X-ray diffraction angle are the following:

$2\Theta \pm 0.5$ (degrees)	Intensity (I/I ₀)
6.89	w, m
9.57	vs
19.35	m
21.37	m
21.90	vs

vs: very strong, m: medium, w: weak.

2. A crystalline material according to claim 1, whose composition on an anhydrous base and in terms of moles of oxide upon being synthesized, unroasted, may be represented by:



wherein:

- T is one or more tetravalent elements other than Ge or Si,
- t varies between 0 and 0.15, preferably between 0 and 0.10,
- z is comprised between 0.02 and 0.67, preferably between 0.04 and 0.5, and "x", "X", "R", "r" and "n" have the meaning given in claim 1.

3. A crystalline material according to claim 1 or 2, wherein R is the cation 1-methyl-4-aza,1-azoniumbicyclo [2.2.2] octane (DABMe^+).

4. A crystalline material according to claim 1 or 2, wherein R is the cation 1,4-bis[N-(4-aza,1-azoniumbicyclo [2.2.2] octane) methyl]benzene (d-DABBz)²⁺.

5. A crystalline material according to claim 1 wherein Y is one or more tetravalent elements selected among Si, Sn, Ti and V.

6. A crystalline material according to claim 1 wherein Y is Si.

7. A crystalline material according to claim 1 or 2, wherein X is one or more trivalent elements selected from the group consisting of B, Al, In, Ga, Fe and Cr.

8. A crystalline material according to claim 2, wherein T is one or more tetravalent elements selected between V, Sn and Ti.

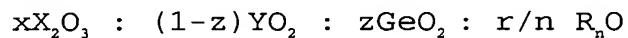
9. A crystalline material according to claim 2, whose composition expressed in molar ratios is the following:

- $\text{ROH}/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$ is between 0.5 and 0.01, preferably between 0.25 and 0.01
- $\text{GeO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$ is between 0.67 and 0.02, preferably between 0.5 and 0.04
- $(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)/\text{X}_2\text{O}_3$ is between ∞ and 50, preferably between ∞ and 100
- $\text{TO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$ is between 0.15 and 0, preferably between 0.1 and 0.

10. A crystalline material according to claim 2, whose composition expressed in molar ratios is the following:

- $\text{R(OH)}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 0.25 and 0.005, preferably between 0.125 and 0.005
- $\text{GeO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 0.67 and 0.02, preferably between 0.5 and 0.04
- $(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)/\text{X}_2\text{O}_3$: between ∞ and 50, preferably between ∞ and 100
- $\text{TO}_2/(\text{SiO}_2+\text{GeO}_2+\text{TO}_2)$: between 0.15 and 0, preferably between 0.1 and 0.

11. A process for synthesizing a crystalline material that does not contain fluorides, with a composition in a roasted state corresponding to that of the material called ITQ-17 and in that it has a composition on an anhydrous base and in terms of moles of oxides upon being synthesized, unroasted, represented by:



wherein:

- X is at least one trivalent element,
- Y is one or more tetravalent elements other than germanium,
- R is an organic structure directing compound,
- x varies between 0 and 0.02, preferably between 0 and 0.01,

- z is comprised between 0.02 and 0.67, preferably between 0.04 and 0.5,
- r varies between 0.01 and 0.5, preferably between 0.01 and 0.25, and
- n is 1 or 2,

and whose most representative values of the X-ray diffraction angle are the following:

$2\Theta \pm 0.5$ (degrees)	Intensity (I/I ₀)
6.89	w, m
9.57	vs
19.35	m
21.37	m
21.90	vs

vs: very strong, m: medium, w: weak,
and whose process comprises:

- a) preparing a synthesis mixture that comprises at least:
 - a source of one or several tetravalent elements included under the name Y,
 - a source of Ge,
 - a source of at least one structure directing agent, and
 - water;
- b) keeping the synthesis mixture at temperatures between 100 and 200°C, until the crystalline material is formed and
- c) recovering the crystalline material.

12. A process according to claim 11, wherein the source of germanium and of the rest of the tetravalent elements is an oxide.

13. A process according to claim 11, wherein the synthesis mixture also comprises a source selected among:

- a source of one or more trivalent elements, X,

- a source of one or more tetravalent elements other than Si and Ge, and
- a mixture of both.

14. A process according to claim 11, wherein the source of the structure directing agent, R, is 1-methyl-4-aza,1-azoniumbicyclo [2,2,2] octane hydroxide (DABMeOH), and wherein the synthesis mixture has a composition expressed in terms of molar ratios in the following intervals:

- $\text{H}_2\text{O}/(\text{YO}_2+\text{GeO}_2)$: between 100 and 0.01, preferably between 50 and 0.1,
- $\text{OH}^-/(\text{YO}_2+\text{GeO}_2)$: between 3 and 0.01, preferably between 1 and 0.03,
- $\text{R}/(\text{YO}_2+\text{GeO}_2)$: between 3 and 0.01, preferably between 1 and 0.03,
- $\text{GeO}_2/(\text{YO}_2+\text{GeO}_2)$: between 0.67 and 0.02, preferably between 0.5 and 0.04, and
- $(\text{YO}_2+\text{GeO}_2)/\text{X}_2\text{O}_3$: between ∞ and 50, preferably between ∞ and 100.

15. A process according to claim 11, wherein the source of the structure directing agent, R, is 1,4-bis[N-(4-aza,1-azoniumbicyclo [2,2,2] octane)methyl]benzene hydroxide (d-DABBz(OH)₂), and wherein the synthesis mixture has a composition expressed in terms of molar ratios in the following intervals:

- $\text{H}_2\text{O}/(\text{YO}_2+\text{GeO}_2)$: between 100 and 0.01, preferably between 50 and 0.1,
- $\text{OH}^-/(\text{YO}_2+\text{GeO}_2)$: between 3 and 0.01, preferably between 1 and 0.03,
- $\text{R}/(\text{YO}_2+\text{GeO}_2)$: between 1.5 and 0.005, preferably between 0.5 and 0.015,
- $\text{GeO}_2/(\text{YO}_2+\text{GeO}_2)$: between 0.657 and 0.02, preferably between 0.5 and 0.04,
- $(\text{YO}_2+\text{GeO}_2)/\text{X}_2\text{O}_3$: between ∞ and 50, preferably

between ∞ and 100.

16. A process according to claim 11, for preparing a material whose composition may be represented by the formula:

$xX_2O_3 : tTO_2 : (1-z-t)SiO_2 : zGeO_2 : r/n R_nO$
wherein:

- T is one or more tetravalent elements other than Ge or Si,

- t varies between 0 and 0.15, preferably between 0 and 0.10,

- z is comprised between 0.02 and 0.67, preferably between 0.04 and 0.5, and "x", "X", "R", "r" and "n" have the meaning given in claim 1,
that comprises:

a) preparing a synthesis mixture that comprises at least:

- a source of silicon,
- a source of Ge, and
- a source of at least one structure directing agent (R) and
- water

b) keeping the synthesis mixture at temperatures between 100 and 200°C, until the crystalline material is formed and

c) recovering the crystalline material.

17. A process according to claim 16, wherein the source of the structure directing agent (R) is 1-methyl-4-aza,1-azoniumbicyclo [2,2,2] octane hydroxide (DABMeOH), and wherein the synthesis mixture has a composition expressed in terms of molar ratios in the following intervals:

- $H_2O/(SiO_2+GeO_2+TO_2)$: between 100 and 0.01, preferably between 50 and 0.1,

- $OH^-/(SiO_2+GeO_2+TO_2)$: between 3 and 0.01,

preferably between 1 and 0.03,

- $R/(SiO_2+GeO_2+TO_2)$: between 3 and 0.01, preferably between 1 and 0.03,

- $GeO_2/(SiO_2+GeO_2+TO_2)$: between 0.67 and 0.02, preferably between 0.5 and 0.04,

- $(SiO_2+GeO_2+TO_2)/X_2O_3$: between ∞ and 50, preferably between ∞ and 100, and

- $TO_2/(SiO_2+GeO_2+TO_2)$: between 0.15 and 0, preferably between 0.1 and 0.

18. A process according to claim 16, wherein the structure directing agent, R, is 1,4-bis[N-(4-aza,1-azoniumbicyclo [2,2,2] octane) methyl]benzene hydroxide (d-DABB₂(OH)₂), and wherein the synthesis mixture has a composition expressed in terms of molar ratios in the following intervals:

- $H_2O/(SiO_2+GeO_2+TO_2)$: between 100 and 0.01, preferably between 50 and 0.1

- $OH^-/(SiO_2+GeO_2+TO_2)$: between 3 and 0.01, preferably between 1 and 0.03

- $R/(SiO_2+GeO_2+TO_2)$: between 1.5 and 0.005, preferably between 0.5 and 0.015

- $GeO_2/(SiO_2+GeO_2+TO_2)$: between 0.67 and 0.02, preferably between 0.5 and 0.04

- $(SiO_2+GeO_2+TO_2)/X_2O_3$: between ∞ and 50, preferably between ∞ and 100,

- $TO_2/SiO_2+GeO_2+TO_2)$: between 0.15 and 0, preferably between 0.1 and 0.

19. A process according to claim 16, wherein the synthesis mixture comprises one or more tetravalent elements, T, selected among V, Sn and Ti.

20. A process according to claim 16, wherein the source of germanium, silicon and the rest of the tetravalent elements is an oxide.

21. A process according to claim 16, wherein the synthesis mixture also comprises a source of one or more trivalent elements, X.

22. A process according to claim 11 or 16 that also comprises a step of post-synthesis treatment of the material, whereby the organic component is removed from the structure by means of a technique selected among extraction, roasting and both.

23. A material obtained according to the process of claim 22, characterized in that its diffraction diagram has the following as the most important lines:

$2\Theta \pm 0.5$ (degrees)	Intensity (I/I _o)
6.89	w, m
9.59	vs
21.27	m
21.87	m
27.87	vs